

## ABSTRACT OF THE DISCLOSURE

A method and apparatus for identifying which one of a plurality of mobile terminals in communication with a ground-based base station, via a transponded satellite, is causing interference with a non-target satellite orbiting in a vicinity of the transponded satellite. The method involves using the base station to sequentially check each of the mobile terminals to identify which one is causing the interference. The check is made by the base station commanding each mobile terminal to modulate the power level of its transmitted signals and then checking with an operator of the interfered with non-target satellite to see if the interference condition has changed. Once the mobile terminal causing the interference condition is identified, the base station can command the mobile terminal to reduce its transmit power accordingly.